
Name of Organization: Erie-Western Pennsylvania Port Authority

Type of Organization: Municipality

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Project Title: Cascade Creek Wetlands Restoration

Project Category: Habitat (Ecological) Protection and Rest

Rank by Organization (if applicable): 0

Total Funding Requested (\$): 100,000 **Project Duration:** 2 Years

Abstract:

Cascade Creek enters Presque Isle Bay, an Area of Concern (AOC), through an 18-acre coastal wetland located within the city of Erie. In a 1998 assessment performed by a team of environmental professionals from several local universities, it was concluded that the invasive plant species amounted to 40% of the total population (with a substantial amount of Phragmites) and was interfering with the proper function of the wetlands. The exotics are also inhibiting the growth of two threatened and one rare Pennsylvania plant species. The team's recommendation is to remove the invasive species as soon as possible and begin re-introducing native plants.

The Erie-Western Pennsylvania Port Authority (EWPPA) has pledged to protect the wetlands and develop a non-intrusive walkway to help establish an environmental education interpretive center. The EWPPA has also identified areas to be re-forested along Cascade Creek. Combined with the Lake Erie Arboretum at Frontier Park (LEAF), the project will promote stewardship of the Cascade Creek and Presque Isle Bay watersheds while using a comprehensive strategy to restore the wetland to its original state.

The project will function as a model restoration project while educating area professionals about the process and techniques used. Students will also be involved through study of the process and water quality and benthic sampling. At the completion of the project, the EWPPA will begin construction of an elevated walkway to reduce the impact of humans on the wetlands while providing viewing areas, an area for environmental education programs and access to the Presque Isle Bay for residents and visitors. The EWPPA would also like to use techniques other Great Lakes watersheds have investigated or implemented to eradicate the Phragmites and the other problem species.

Geographic Areas Affected by the Project

States:

<input type="checkbox"/> Illinois	<input type="checkbox"/> New York
<input type="checkbox"/> Indiana	<input checked="" type="checkbox"/> Pennsylvania
<input type="checkbox"/> Michigan	<input type="checkbox"/> Wisconsin
<input type="checkbox"/> Minnesota	<input type="checkbox"/> Ohio

Lakes:

<input type="checkbox"/> Superior	<input checked="" type="checkbox"/> Erie
<input type="checkbox"/> Huron	<input type="checkbox"/> Ontario
<input type="checkbox"/> Michigan	<input type="checkbox"/> All Lakes

Geographic Initiatives:

<input type="checkbox"/> Greater Chicago	<input type="checkbox"/> NE Ohio	<input type="checkbox"/> NW Indiana	<input type="checkbox"/> SE Michigan	<input type="checkbox"/> Lake St. Clair
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Primary Affected Area of Concern: Presque Isle Bay, PA

Other Affected Areas of Concern:

For Habitat Projects Only:

Primary Affected Biodiversity Investment Area: Presque Isle

Other Affected Biodiversity Investment Areas:

Problem Statement:

Erie's Presque Isle Bay was designated the 43rd Area of Concern (AOC) on the Great Lakes. Cascade Creek, one of two main waterways that enters the bay, has been found to be the source of polycyclic aromatic hydrocarbons (PAHs) and sediment entering the bay at this point. At the mouth of Cascade Creek, an 18-acre coastal wetland serves to filter sediment and provide habitat for numerous plant and animal species. However, due to an abundance of invasive plant species, the area has not been able to function properly. This has led to a low level of macro-invertebrates and the inability of the area to provide the necessary habitat for the several types of fish species found there.

Proposed Work Outcome:

The primary goal of the project is to remove all invasive species in a way that does not upset the balance of this ecosystem and carefully restore the native species to promote the health of the wetlands and the species that are located there.

Proposed Tasks

1. The Cascade Creek wetlands will be surveyed by a team of local botanists and biologists using Global Positioning System (GPS) technology to determine where the invasive plant species are located and to create a map for use during the project.
2. After public participation and comment, the EWPPA will use the team that completed the 1998 assessment to devise a strategy to remove or control the invasive plants without disturbing the wildlife population or other plant species.
3. Under the supervision of project managers and public agency officials, water testing will be performed by student/teacher groups at the project site to gauge project success and establish a water quality goal for the project.
4. Permits will be secured and Phase I of plant removal or control will be undertaken.
5. Process will have a strong emphasis on visual documentation in addition to inviting water quality and agency professionals to visit the site and learn about the process first hand. There will be a focus on Phragmites which has plagued the Presque Isle Basin as well as other areas in the Great Lakes.

6. After the completion of the first phase in the fall of 2000, the project team will conduct a survey of the wetlands to determine a rate of success and plan for the second phase which involves removal of non-native tree species.
7. In the summer of 2001, team will again invite public participation and comment about the process and discuss results of Phase I. Phase II will begin upon approval of appropriate agency representatives.
8. During Phase II, non-native trees will be removed and native species will be added to the project site.
9. In the Spring of 2002, Phase I and II success will be reviewed and water and benthic testing will be completed.
10. Report will be drafted for EWPPA board, public and GLNPO review.
11. July 2002, Final report will be submitted to GLNPO.
12. The invasive species will be monitored on an on-going basis after the project is completed and will be shared with GLNPO and our partners in the Presque Isle Bay Watershed. Information updates will be posted on the Wetland Park's website.

Project Milestones:**Dates:**

Phase I - Field analysis and mapping	07/2000
Begin water testing and control measures	08/2000
Plan for Phase II (tree removal)	09/2000
Monitor success & coordinate Phase II	06/2001
Plant and restore Phase II sites	07/2001
Monitor success & conduct water sampling	08/2001
Prepare monitoring report	09/2001
Final sampling; draft report for GLNPO	06/2002

☒ Project Addresses Environmental Justice

If So, Description of How:

During Erie's industrial heyday, the project area was surrounded by railyards, shipping docks, and other manufacturing operations. The neighborhoods adjacent to the waterfront were comprised of mostly lower income workers who were employed along the waterfront. While the land uses have changed, the degraded, unused or contaminated land still remained in close proximity to these low-income neighborhoods which have somewhat higher minority populations than other neighborhoods.

The EWPPA has pledged protection of natural areas along the waterfront, the establishment of green buffers and protection of open space, continuous access to the waterfront, and creation of environmental education sites throughout the Bayfront District. By the end of the project, the EWPPA will have completed two pedestrian overpasses to unite these neighborhoods with the bayfront and added more multi-use trails for non-motorized access.

Above all, the EWPPA recognizes that all citizens should be protected from detrimental land uses and that all citizens can be empowered to become stewards of their waterfront through public areas and the sense of ownership they foster.

☒ Project Addresses Education/Outreach

If So, Description of How:

The project will serve to educate public agency personnel, engineers, and other environmental professionals interested in combatting invasive species. At the same time, the project will provide local students with an opportunity to become part of an important project while using classroom skills in a field setting.

Once the Cascade Creek Wetland Interpretive Center is completed, residents and visitors will be able to view the results and understand the importance of the project as well as wetlands. At the Center, regular environmental programming will be available and regular water and benthic sampling will be performed by local schools and the Glinodo Earth Force program.

Project Budget:

	Federal Share Requested (\$)	Applicant's Share (\$)
Personnel:	0	2,000
Fringe:	0	0
Travel:	0	0
Equipment:	0	5,000
Supplies:	0	500
Contracts:	100,000	14,000
Construction:	0	50,000
Other:	0	1,000
Total Direct Costs:	100,000	72,500
Indirect Costs:	0	0
Total:	100,000	72,500
Projected Income:	0	0

Funding by Other Organizations (Names, Amounts, Description of Commitments):

Currently, the EWPPA has not received any other funding to undertake this project. The EWPPA has recently applied for funds through the Pennsylvania Department of Environmental Protection's Growing Greener Program to complete the project. The EWPPA would like to work with DEP and GLNPO to jointly fund the project.

Description of Collaboration/Community Based Support:

The EWPPA has the support of several advocacy, citizen and non-profit groups as well as various public agencies. They include, the S.O.N.S (Save of Native Species) of Lake Erie, the Lake Erie Arboretum at Frontier Park (LEAF), the Bayfront Access and Beautification Organization (BABO),

Glinodo Earth Force, Lake Erie Welcome Center, the Presque Isle Bay Advisory Committee which oversees the bay's Remedial Action Plan (RAP), the city of Erie, Erie County and the Erie County Planning Commission, the NW Pennsylvania Aquarium Consortium, Pennsylvania Sea Grant, Pennsylvania Fish Commission and the Pennsylvania Department of Environmental Protection. The EWPPA will also work closely with Presque Isle State Park which has recently begun control measures of Phragmites on the peninsula.

The EWPPA has been engaged in preliminary discussion about the involvement of some of the groups in aspects of the project ranging from water testing to field analysis to volunteer labor and in-kind services. It is the goal of the EWPPA to stimulate a sense of ownership and pride in this future park which can then spread to other parts of the Cascade Creek, Presque Isle Bay and Lake Erie watersheds.